Should Parents Allow Their Adolescent Children to Drink at Home? Family Factors as Predictors of Alcohol Involvement Trajectories Over 15 Years

ASH LEVITT, PH.D.,[a,*] & M. LYNNE COOPER, PH.D.[b]

[a]*Research Institute on Addictions, University at Buffalo, SUNY, Buffalo, New York*
[b]*Department of Psychological Sciences, University of Missouri, Columbia, Missouri*

ABSTRACT. Objective: The present study examined familial risk and protective factors as moderators of parents allowing their adolescent children to drink at home on longitudinal alcohol involvement trajectories. **Method:** A total of 772 community adolescents and their parents provided data beginning in 1989 and at four subsequent time points over 15 years; Black adolescents were intentionally oversampled (50% at baseline). **Results:** Outcomes related to allowing adolescents to drink at home depended on family structure: Adolescents from intact families who were allowed to drink at home showed the lowest levels of alcohol use and problems over time, whereas those from nonintact families who were allowed to drink at home showed the highest levels of involvement. These results controlled for family history of alcohol problems, consistent parenting styles, and demographic characteristics. **Conclusions:** Results suggest that allowing adolescents to drink at home is neither inherently protective nor risky but depends on the family context. Implications for the development of adolescent alcohol involvement are discussed. (*J. Stud. Alcohol Drugs, 76,* 661–670, 2015)

PARENTS OF ADOLESCENTS remain divided on whether and how to allow their children to drink at home (Kypri et al., 2007; Roberts et al., 2010). Some parents believe that allowing adolescents to drink at home is developmentally protective (Jackson et al., 2012). The home represents a supervised and controlled environment in which adolescents can learn to drink responsibly, where the allure of alcohol as a "forbidden fruit" is minimized. In contrast, others believe that allowing adolescents to drink at home sends the wrong message. It condones an illegal behavior that carries potentially significant health risks (National Institute on Alcohol Abuse and Alcoholism, 2004–2005) and can thereby set the stage for later problems. Although this issue is not new (Zinberg, 1984), it remains a hotly debated topic (Epstein, 2010; van der Vorst et al., 2010a, 2010b), in part because the scientific literature has failed to yield a clear answer. Longitudinal research over extended periods that examines multiple risk factors simultaneously in a racially mixed sample is especially lacking (Kaynak et al., 2014). Therefore, the current study addresses these issues by longitudinally examining the effects of drinking at home on trajectories of alcohol involvement from adolescence into young adulthood using a community sample of adolescents and their parents.

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*Correspondence may be sent to Ash Levitt at the Research Institute on Addictions, University at Buffalo, SUNY, 1021 Main Street, Buffalo, NY, 14203, or via email at: alevitt@ria.buffalo.edu.

Outcomes related to allowing adolescents to drink at home

Up to 30% of parents report allowing their children to drink at home under at least some circumstances (American Medical Association, 2005; Jackson et al., 1999; Kaynak et al., 2014; Komro et al., 2007). Rates are even higher when adolescents' perceptions of parental provision of alcohol and alcohol availability at home are included (Komro et al., 2007). Although a substantial percentage of parents allow their adolescent children to drink at home, outcomes related to doing so, especially over time, remain unclear. Cross-sectional analyses, for example, have shown both lower (e.g., Foley et al., 2004; Mayer et al., 1998) and higher (e.g., Marsden et al., 2005; Yu, 2003) levels of alcohol involvement among adolescents who drink at home. In addition, Donovan et al. (2008) provide evidence suggesting that allowing children to drink in the home is not associated with certain maladaptive outcomes such as deviant behavior. Longitudinal studies of drinking at home, which can account for initial levels of use and model alcohol involvement as a temporal consequence of drinking at home, also show mixed results. Jackson et al. (1999) found that fifth graders (i.e., about 11 years old) who reported that their parents allowed them to drink at home were twice as likely to have consumed alcohol in the past 30 days when re-interviewed 2 years later. Similarly, Komro et al. (2007), using a sample of predominantly Black and Hispanic inner-city youth, found that sixth graders (i.e., 12-year-olds) whose parents reported allowing them to

drink at home experienced steeper increases in several indicators of alcohol use over the past year but not in the past month or past week. Van der Vorst et al. (2010a) also found that adolescents (ages 13–16) who reported drinking at home indicated higher rates of drinking problems 1 year later, even after they controlled for drinking outside the home. In contrast, Warner and White (2003) found that among early-onset drinkers (defined as first drink before age 11), 78% of those whose first drink occurred outside of a family gathering went on to develop alcohol problems by age 30 compared with 45% whose first drink occurred at a family gathering. No difference as a function of first drink setting was found for those whose first drink occurred after age 11. Finally, Livingston et al. (2010) found that girls who were allowed to drink at home with their friends during high school reported higher rates of heavy episodic drinking in the first year of college compared with those who were allowed to drink at home only during family meals or who were not allowed to drink at home. Unfortunately, boys were not included in this study.

Discrepant findings may reflect a variety of methodological differences, including differences (a) in the age, gender, and racial composition of the samples; (b) between cross-sectional and longitudinal designs and, among longitudinal studies, in the length of follow-up; and (c) in the way that both predictors and outcomes are assessed, including whether parental or adolescent reports of parental drinking policy (i.e., parents' terms of allowance and supply of adolescents' alcohol use) are used (Kaynak et al., 2014). Especially in studies relying solely on adolescent reports, it may not always be clear whether the parent actually allows drinking at home or whether the adolescent knows that alcohol can be surreptitiously obtained at home or believes (perhaps erroneously) that the parent would allow him or her to drink at home. Finally, as several of the studies described below suggest, mixed results may also reflect the fact that outcomes related to allowing adolescents to drink at home depend on other familial risk factors.

Familial risk factors

Three familial factors that are associated with increased risk for heavy or problematic alcohol use among offspring have been identified both theoretically and empirically in the literature. First, a family history of alcohol problems, which reflects both biological and environmental influences, has been shown to predict greater problematic alcohol involvement (Sher et al., 1991). Second, the use of parenting practices associated with inconsistent rule setting and rule enforcement compared with consistent practices has also been associated with greater substance use among adolescents (Baumrind, 1991; Jackson et al., 1999). According to social learning theory, consistent alcohol-specific parenting can buffer adolescents' problematic alcohol involvement (Koning et al., 2014). Finally, living in a nonintact family structure (i.e., a blended or single-parent household) compared to living with both biological parents is consistently associated with greater alcohol involvement (Brown & Rinelli, 2010; Hemovich et al., 2011; Hope et al., 1998). Taken as a whole, these factors not only are able to determine whether observed associations for allowing adolescents to drink at home are independent of other known risk factors but also allow for testing the hypothesis that both family environment and biological risk factors moderate the associations of allowing adolescents to drink at home on trajectories of alcohol use and misuse over time.

Current study

The current study examined whether empirically and theoretically identified familial risk and protective factors moderate the associations of drinking at home on adolescents' alcohol involvement trajectories over time in a community sample of adolescents and their parents. Specifically, the current study tested the hypotheses that allowing adolescents to drink at home would be associated with relatively more problematic trajectories of use (i.e., higher baseline rates, steeper linear growth, and slower or less steep quadratic decline over time) if the adolescent had a positive family history of alcohol problems (compared with no family history), if the parent had an inconsistent manner of parenting (compared with consistent), or if the adolescent lived in a nonintact family environment (compared with intact). In addition, following developmental theory (see Masten, 2001; Sameroff, 2000, for reviews), the hypothesized risk and protective moderators were examined simultaneously. Finally, although we did not offer specific hypotheses for demographic differences (i.e., gender, race, and socioeconomic status [SES]), we also examined the possibility that the outcomes related to allowing adolescents to drink at home varied across demographic subgroups (Kaynak et al., 2014).

Method

Sample and procedure

Respondents were drawn from a longitudinal study of 2,051 randomly selected adolescents from Buffalo, NY. Respondents were first interviewed in 1989 (T1) and were re-interviewed up to four times (T2: 6 years on average after T1; T3: 6 years on average after T2; and T4–T5: at least 1 year after T3 and T4, respectively) over the subsequent 15 years. Black adolescents were intentionally oversampled and thus comprised 50% of the T1 sample. Complete details of the original sampling procedure (Cooper, 1994) and participation across study waves (Cooper et al., 2008) are presented elsewhere. A total of 820 primary caregivers (93% biological

Table 1. Descriptive statistics and correlations between individual-level predictor variables

Variable	1	2	3	4	5	6	7	8	9	*M* (*SD*)
1. Age	–	.014	-.026	**-.088**	.028	-.014	.001	-.042	**.185**	15.15 (1.38)
2. Gender		–	-.018	-.031	-.033	.038	**-.080**	.018	-.065	0.50 (0.50)
3. Race			–	.051	**-.221**	**.093**	**-.116**	**.270**	**.257**	0.50 (0.50)
4. SES				–	.017	-.043	-.052	**.108**	.048	2.00 (0.91)
5. Age at first intoxication					–	-.064	.053	.002	-.068	16.39 (2.62)
6. Family history						–	**-.158**	**-.152**	.050	0.64 (0.48)
7. Consistent parenting							–	.059	.002	4.76 (1.19)
8. Family structure								–	.065	0.37 (0.48)
9. Drink at home									–	0.24 (0.43)

Notes: Gender was coded 1 = male, 0 = female. Race was coded 1 = White, 0 = non-White. SES = parental socioeconomic status. Family history of alcohol problems was coded 1 = history of problems, 0 = no history of problems. Family structure was coded 1 = intact, 0 = not intact. Drink at home was coded 1 = allowed to drink at home, 0 = not allowed to drink at home.
Coefficients in **boldface** are significant at $p < .05$.

mothers) of adolescents who were under 18 years of age at T1 were also interviewed approximately 1 year after the T1 interview, representing 91% of all eligible caregivers (see Cooper et al., 1995, for methodological details on the parent interviews).

Analyses for the current study were based on a subsample of 772 Black and White adolescents who were under 18 years of age at T1 and whose parents provided valid reports on whether the adolescent was allowed to drink at home. This represents 94% of the eligible adolescents whose parents were interviewed. Retained adolescents were 15.1 years old (range: 12–17), on average, at T1 and split evenly on race and gender (50% White; 50% male). A total of 608, or 79% of the sample, was retained over two waves. However, for reasons unrelated to the current study, only respondents who were 27 years or younger were followed up after T3 (see Cooper et al., 2008, for details). Thus, the sample size drops to 326 and 244 at T4 and T5, respectively, primarily reflecting changes in the study design rather than attrition. Attrition analyses (more fully described in Cooper et al., 2008) showed that female, White, and younger individuals, and those from higher socioeconomic backgrounds completed more interviews. With the exception of gender ($\beta = .21$), however, all coefficients were small in magnitude ($\beta s < .07$). Descriptive data for and correlations between individual-level baseline (T1) predictor variables are shown in Table 1. Descriptive data for time-varying alcohol involvement outcome variables presented by age are shown in Table 2.

Measures

Drinking at home. A single dichotomous (yes/no) item was assessed by parental report indicating whether the adolescent was allowed to drink at home. In the current sample, 187 parents (24%) reported allowing their adolescent child to drink at home, a percentage comparable to that found in other samples (Jackson et al., 1999).

Age at first intoxication. A single item assessed the age at which the adolescent first drank to the point of being intoxicated. We controlled for this variable in all models as opposed to age at first drink given that our outcomes largely reflected heavy/problematic alcohol involvement.

Family alcohol risk. A modified version of the Family History Research Diagnostic Criteria protocol (Endicott et al., 1975) was used to assess a lifetime history of drinking problems in the biological mother and father as well as in maternal and paternal first-degree relatives. Parents indicated (yes/no) whether each of the four target groups had experienced a history of problems (e.g., problems with marriage and family, health problems, etc.), regardless of whether they received treatment for these problems. If any of the four items was endorsed for a specific target, that person was assumed to have a positive family history (see Cooper et al., 1995, for details), and a dichotomous variable was created where 1 = positive family history and 0 = no family history of alcohol problems.

Consistent parenting practices. Primary caregivers rated three items, adapted from Barnes et al. (1986), assessing a consistent parenting style. An example item is, "I have little or no difficulty sticking to rules for my son/daughter." Items were scored on a 6-point scale where 1 = *disagree strongly* and 6 = *agree strongly,* and were reliable ($\alpha = .71$).

Family structure. A three-level variable reflecting intact (i.e., both biological parents), single-parent (i.e., only one biological parent), and blended (i.e., one biological parent and one stepparent) family structures was created based on adolescent reports of household membership at the time of the interview. However, because preliminary analyses showed no differences between single-parent and blended family structures on any of the alcohol trajectories, a single, dichotomous intact versus nonintact (including both single-parent and blended family households) variable was used in all subsequent analyses.

Adolescent alcohol outcomes. Three measures of alcohol involvement were obtained at each wave: (a) average quantity/frequency (Q/F) of daily alcohol consumption was assessed by a composite of two items, frequency of drinking and number of drinks consumed daily, both in the past 6

TABLE 2. Means (*SD*) for study outcome variables and proportion of drink at home predictor by age

Age	*N*	Quantity/ frequency	Heavy drinking	Drinking problems	Drink at home
13	107	0.018 (0.069)	0.122 (0.475)	0.056 (0.231)	0.187 (0.392)
14	168	0.100 (0.406)	0.405 (1.047)	0.191 (0.501)	0.137 (0.345)
15	159	0.243 (0.663)	0.827 (1.601)	0.264 (0.579)	0.233 (0.424)
16	161	0.262 (0.609)	0.957 (1.706)	0.335 (0.622)	0.255 (0.437)
17	198	0.515 (0.965)	1.487 (2.127)	0.399 (0.674)	0.387 (0.489)
18	142	0.438 (0.905)	1.581 (1.943)	0.225 (0.564)	–
19	151	0.632 (1.109)	2.043 (2.299)	0.378 (0.755)	–
20	139	0.674 (1.071)	2.151 (2.129)	0.374 (0.783)	–
21	137	0.547 (0.892)	2.007 (2.225)	0.380 (0.833)	–
22	92	0.650 (1.003)	1.902 (2.195)	0.337 (0.774)	–
23	60	0.499 (0.973)	1.675 (2.125)	0.467 (0.892)	–
24	107	0.453 (0.724)	1.598 (1.956)	0.215 (0.599)	–
25	171	0.545 (0.950)	1.845 (2.220)	0.246 (0.693)	–
26	227	0.456 (0.819)	1.577 (2.042)	0.216 (0.639)	–
27	294	0.487 (0.878)	1.510 (2.065)	0.194 (0.560)	–
28	216	0.493 (0.903)	1.414 (1.942)	0.190 (0.622)	–
29	75	0.471 (0.913)	1.373 (1.889)	0.093 (0.408)	–
30	7	0.315 (0.531)	1.571 (1.836)	0.143 (0.378)	–

Note: Dashes for "Drink at home" indicate that this predictor variable was not assessed at later waves beyond the initial parental report.

months; (b) heavy drinking was also assessed by a composite of two items, frequency of drinking five or more drinks on a single occasion and frequency of drinking to intoxication, both in the past 6 months; and (c) drinking problems were assessed by a count of the number of problems reported at each wave. At T1, five items were included assessing the frequency of alcohol-related problems experienced with parents, friends, dating partners, and at school or work (Jessor et al., 1989). However, because several of these problems were no longer developmentally relevant at later waves (e.g., problems with parents), the Short Michigan Alcoholism Screening Test (SMAST; Selzer et al., 1975) was used at T2–T5. The SMAST also assesses occupational and social problems as well as more serious symptoms of tolerance and dependence. Although the change in measurement complicates interpretations of absolute changes in level from T1 to T2, relative changes over time (which are the primary focus of the present study) should nevertheless be meaningful.

Q/F and drinking problems were nonnormally distributed. To improve normalcy of these variables while retaining the rank order of responses, extreme values (comprising <2% of each distribution) were recoded to the next highest value in the distribution for both variables.

Data analyses

Multilevel growth curve analyses were conducted using hierarchical linear modeling (HLM 7; Raudenbush et al., 2011). As recommended by Mehta and West (2000), repeated measures of alcohol involvement were modeled at Level 1 as a function of age at each wave and nested within individuals. Individual-level variables (i.e., gender, race, parental SES, familial alcohol risk, family structure, consistent parenting practices, drinking at home) were modeled at Level 2 and were allowed to predict the intercept, linear, and quadratic age (i.e., age^2) coefficients at Level 1. Dichotomous variables were entered into models uncentered. Continuous variables were entered into models grand mean centered. Interaction terms between Level 2 variables were created from uncentered dichotomous or grand mean centered continuous variables and entered into models uncentered. All models estimated a random intercept and error term, whereas all predictors were estimated as fixed effects.

A general, iterative procedure was used in the estimation of all models. Based on recommendations by Hox (2010), models were built in a forward, additive manner. First, to describe the average patterns of change over time, base models including the intercept, linear, and quadratic coefficients for age (centered at 14 years) were estimated for each outcome. Next, coefficients for being allowed to drink at home and its interaction with age (i.e., cross-level interactions) were tested, controlling for average between-person differences in gender, race, and SES. Finally, to test our hypotheses that outcomes related to drinking at home are moderated by familial risk factors, two-way Risk Factor × Drinking At Home, and three-way Risk Factor × Drinking At Home × Age interactions were estimated in separate models, one for each risk factor. Risk Factor × Drinking At Home interactions were entered into models simultaneously. Because trimmed models are more parsimonious and have been shown to yield more stable estimates (Hox, 2010; Raudenbush & Bryk, 2002), nonsignificant terms were trimmed and models were re-estimated including only significant predictors. However, nonsignificant main effect terms were retained when needed to provide a valid test of a significant higher-order interaction. Thus, only terms up to

the highest-order significant coefficient for each model are presented.

Results

How does alcohol involvement change from adolescence to young adulthood?

To characterize average trajectories of alcohol involvement over time, each outcome was predicted as a function of linear and quadratic age, centered at age 14. Base growth curve models were similar across all three alcohol outcomes. Intercepts for all indicators of alcohol involvement were significant (Q/F: b = 0.188, SE = 0.027, t = 6.920, 95% CI [0.135, 0.241]; heavy drinking: b = 0.621, SE = 0.065, t = 9.603, 95% CI [0.494, 0.748]; drinking problems: b = 0.244, SE = 0.024, t = 10.008, 95% CI [0.197, 0.291]; all ps < .001), indicating that alcohol involvement was greater than zero at age 14. All linear slopes were also significant and positive (Q/F: b = 0.116, SE = 0.011, t = 10.281, 95% CI [0.094, 0.138]; heavy drinking: b = 0.392, SE = 0.024, t = 16.037, 95% CI [0.345, 0.439]; drinking problems: b = 0.050, SE = 0.009, t = 5.260, 95% CI [0.032, 0.068]; all ps < .001), indicating that alcohol involvement increased throughout adolescence into the early to mid-twenties. In addition, all quadratic coefficients were significant and negative (Q/F: b = -0.007, SE = 0.001, t = -8.631, 95% CI [-0.009, -0.005]; heavy drinking: b = -0.024, SE = 0.002, t = -14.375, 95% CI [-0.028, -0.020]; drinking problems: b = -0.004, SE = 0.001, t = -6.220, 95% CI [-0.006, -0.002]; all ps < .001), indicating that alcohol involvement decreased as participants entered young adulthood. This pattern replicates previous developmental alcohol research (e.g., O'Malley, 2004/2005), thus supporting the validity of our alcohol outcome measures.

Does allowing adolescents to drink at home influence alcohol involvement over time?

Coefficients for allowing adolescents to drink at home, and their interactions with age, were then added to base models, controlling for demographic differences. Allowing adolescents to drink at home did not predict the intercept (Q/F: b = -0.077, SE = 0.062, t = -1.238, p = .216, 95% CI [-0.199, 0.045]; heavy drinking: b = -0.010, SE = 0.156, t = -0.061, p = .951, 95% CI [-0.316, 0.296]; drinking problems: b = -0.064, SE = 0.057, t = -1.126, p = .261, 95% CI [-0.176, 0.048]), linear (Q/F: b = 0.029, SE = 0.025, t = 1.142, p = .254, 95% CI [-0.020, 0.078]; heavy drinking: b = -0.005, SE = 0.058, t = -0.088, p = .930, 95% CI [-0.119, 0.109]; drinking problems: b = 0.018, SE = 0.022, t = 0.820, p = .412, 95% CI [-0.025, 0.061]), or quadratic (Q/F: b = -0.002, SE = 0.002, t = -0.995, p = .320, 95% CI [-0.006, 0.002]; heavy drinking: b = 0.000, SE = 0.004, t = 0.064, p = .949, 95% CI [-0.008, 0.008]; drinking problems: b = -0.001, SE = 0.001, t = -0.570, p = .569, 95% CI [-0.003, .001]) components of the growth curve trajectories for any of the outcomes. Thus, consistent with the weak and inconsistent results reported in past studies, we failed to find associations for drinking at home on any component of the alcohol growth curves.

Are outcomes related to drinking at home moderated by a family history of alcohol problems?

Coefficients for familial risk and protective factors and their interactions with drinking at home and age were added to the models, with demographic differences controlled for. Final trimmed models of the coefficients for familial risk and protective factors and drinking at home are shown in Table 3. As shown, and contrary to expectation, a positive family history of alcohol problems did not moderate the associations of drinking at home for any alcohol involvement outcome. However, as shown in Table 3, Model 3, and in line with expectation, a positive family history influenced trajectories of adolescent drinking problems over time. Specifically, adolescents with a positive family history experienced significantly steeper linear growth in drinking problems over time (as indicated by the Family History × Age interaction). No other associations were found for family history.

Are outcomes related to drinking at home moderated by consistent parenting practices?

A consistent parenting style also did not moderate associations of drinking at home on any alcohol involvement outcome, contrary to expectation (Table 3). However, as shown in Table 3, Model 2, and in line with expectation, a consistent parenting style was associated with significantly lower levels of heavy drinking at age 14. No other associations were found for consistent parenting.

Are outcomes related to drinking at home moderated by family structure?

As expected, family structure showed consistent and strong moderated associations with drinking at home on the intercepts of all three adolescent alcohol involvement outcomes (see Models 1, 2, and 3 in Table 3). Moreover, plotting the interactions revealed similar patterns across outcomes. As shown in Figure 1, adolescents who were allowed to drink at home experienced the lowest levels of alcohol involvement at age 14 if living in an intact family but the highest levels of involvement if living in a nonintact family. These differences were maintained over time (as indicated by the lack of interactions with age or age^2) for both heavy drinking and drinking problems outcomes.

TABLE 3. Summary of final growth curve models predicting adolescent alcohol involvement over time

Variable	*b*	(*SE*)	*t*	*p*	95% CI Lower	95% CI Upper
Quantity/frequency						
Model 1						
Intercept coefficients						
Intercept	0.195	(0.040)	4.856	.000	0.117	0.273
Gender	0.354	(0.048)	7.319	.000	0.260	0.448
Race	0.144	(0.050)	2.880	.004	0.046	0.242
Age at first intoxication	-0.065	(0.008)	-8.491	.000	-0.081	-0.049
Intact	-0.024	(0.064)	-0.367	.713	-0.149	0.101
Drink at home	0.133	(0.084)	1.594	.111	-0.032	0.298
Drink At Home × Intact	-0.306	(0.105)	-2.912	.004	-0.512	-0.100
Linear coefficients						
Age	0.099	(0.014)	6.831	.000	0.072	0.126
Intact × Age	0.046	(0.023)	1.991	.047	0.001	0.091
Quadratic coefficients						
Age^2	-0.005	(0.001)	-5.262	.000	-0.007	-0.003
Intact × Age^2	-0.004	(0.002)	-2.315	.021	-0.008	-0.000
Heavy drinking						
Model 2						
Intercept coefficients						
Intercept	0.540	(0.081)	6.665	.000	0.381	0.699
Gender	0.779	(0.105)	7.412	.000	0.573	0.985
Age at first intoxication	-0.208	(0.018)	-11.810	.000	-0.243	-0.173
Consistent parenting	-0.151	(0.046)	-3.258	.000	-0.241	-0.061
Intact	0.186	(0.123)	1.508	.132	-0.055	0.427
Drink at home	0.351	(0.177)	1.991	.047	0.004	0.698
Drink At Home × Intact	-0.807	(0.238)	-3.391	.000	-1.273	-0.341
Linear coefficients						
Age	0.391	(0.025)	15.918	.000	0.342	0.440
Quadratic coefficients						
Age^2	-0.023	(0.002)	-14.090	.000	-0.027	-0.019
Drinking problems						
Model 3						
Intercept coefficients						
Intercept	0.229	(0.029)	8.027	.000	0.172	0.286
Gender	0.147	(0.035)	4.183	.000	0.078	0.216
Age at first intoxication	-0.037	(0.006)	-6.702	.000	-0.049	-0.025
Family history	-0.072	(0.046)	-1.557	.120	-0.162	0.018
Intact	0.027	(0.042)	0.658	.511	-0.055	0.109
Drink at home	0.129	(0.063)	2.053	.040	0.006	0.252
Drink At Home × Intact	-0.269	(0.079)	-3.413	.000	-0.424	-0.114
Linear coefficients						
Age	0.050	(0.009)	5.316	.000	0.032	0.068
Family History × Age	0.011	(0.005)	2.390	.017	0.001	0.021
Quadratic coefficients						
Age^2	-0.004	(0.001)	-6.169	.000	-0.006	-0.002

Notes: Coefficients are unstandardized. Age was centered at 14 years in all analyses. CI = confidence interval.

However, an intact family structure also interacted with age to predict relatively steeper linear increases and with age^2 to predict quadratic decreases in average Q/F (Table 3; Figure 1, top panel). Interestingly, adolescents who were not allowed to drink at home generally displayed intermediate levels of alcohol involvement that did not differ from one another across family structures (with the previously described exception for Q/F). These results suggest that allowing adolescents to drink at home can be either developmentally protective or risky depending on the type of family structure in which they live. In addition, these associations are independent of other family history of alcohol problems, consistent parenting, and demographic differences.

Are outcomes related to drinking at home similar across demographic subgroups?

Finally, as shown in Table 3, our results supported previous research by showing that alcohol involvement at age 14 was greater among male adolescents for all three outcomes, and greater among White adolescents for Q/F (Johnston et al., 2010). However, race did not predict heavy drinking or drinking problems outcomes, and parent's SES was not associated with any outcome (Wiles et al., 2007). In addition, demographic characteristics did not interact with drinking at home, family structure, or the Drinking At Home × Family Structure two-way interaction to predict any of the alcohol

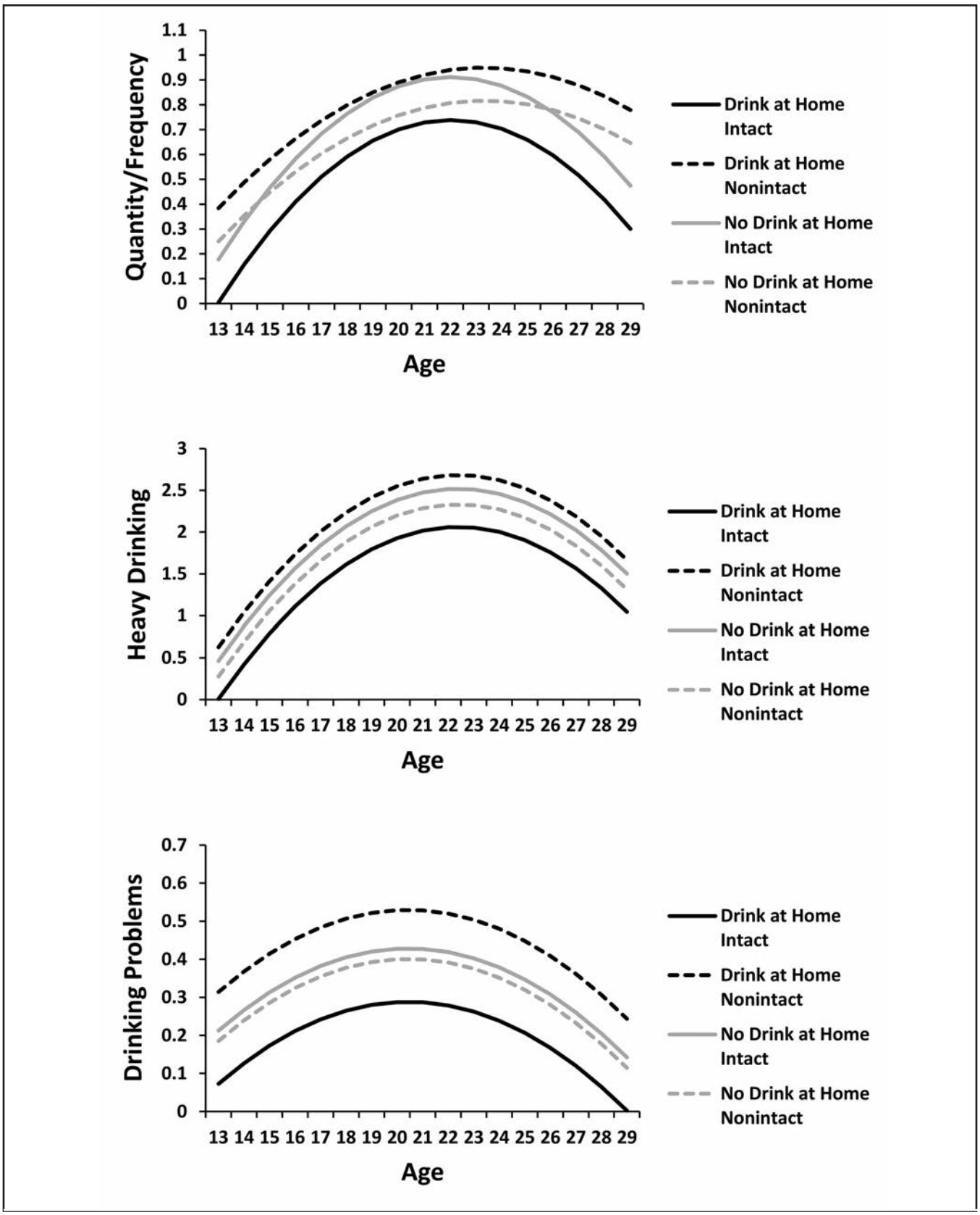

FIGURE 1. Drink At Home × Family Structure interactions predicting adolescent alcohol outcomes over time. Top panel shows trajectories for quantity/frequency; middle panel shows trajectories for heavy drinking; bottom panel shows trajectories for drinking problems.

involvement outcome trajectories. Thus, our findings were robust across gender, race, and SES subgroups.

Discussion

The current study examined alcohol involvement from adolescence into young adulthood as a function of whether the adolescent was allowed to drink at home in combination with a family history of alcohol problems, consistent parenting practices, family structure, and demographic characteristics. Our results suggest that allowing adolescents to drink at home is not inherently risky or protective. Instead, outcomes related to allowing adolescents to drink at home depended on whether the adolescent lived in an intact versus blended or single-parent family environment. This conditional pattern of results builds on previous research showing enhanced vulnerability to poor outcomes among youth living in nonintact families (e.g., Brown & Rinelli, 2010; Hemovich et al., 2011; Hope et al., 1998). Importantly, our findings also suggest that conclusions drawn in previous longitudinal studies (e.g., Komro et al., 2007) about the adverse outcomes associated with allowing one's adolescent child to drink at home are not uniform across familial contexts. Rather, our results suggest that allowing adolescents to drink at home may be protective among those living in an intact family but risk promotive among those living in nonintact families. The current study also indicates that these results were independent of family history of alcohol problems, parenting practices, or demographic characteristics.

The findings for family structure can be interpreted in different yet related ways. One interpretation is that family structure serves as a proxy for the presence versus absence of paternal involvement, which has been shown to protect against heavy or problematic alcohol use in cross-sectional analyses (Goncy & van Dulmen, 2010). Typically, nonintact families are more likely to reflect the absence of the biological father than the mother (83% vs. 17%; U.S. Census Bureau, 2009). This was certainly the case in the current study, wherein 95% of nonintact families reflected the absence of the biological father compared with the mother, $\chi^2(1) = 666.89$, $p < .001$. Thus, our data indirectly support and extend Goncy and van Dulmen's (2010) findings regarding adverse outcomes associated with paternal noninvolvement. Furthermore, our results suggest that this association does not differ between White and Black adolescents in our sample. Given that parental supervision and monitoring have also been shown to suffer in single-parent versus dual-parent families (Hemovich et al., 2011), and that inadequate parental monitoring is a well-documented risk factor for problematic adolescent alcohol involvement (Hemovich et al., 2011; Jackson et al., 1999), another possible interpretation is that the intact family structure variable is acting as a proxy for parental monitoring. Moreover, at a more global level, all of these factors may be elements of holistic family involvement that combines multiple positive aspects of parental involvement such as parenting styles, communication patterns, and rule-setting behaviors. This global construct has recently been shown to protect against problematic alcohol involvement over time in adolescents (Schlauch et al., 2013).

Unfortunately, however, a limitation of the current study is that parental monitoring, either generally or with specific regard to adolescent alcohol use—or as part of a comprehensive measure of holistic family involvement—was not assessed. Taken together, these possibilities point to the importance of directly assessing parental monitoring, separately examining paternal versus maternal involvement, and placing these factors in the broader context of holistic family involvement. In addition, given complexities highlighted in previous research concerning parental supply of alcohol (Kaynak et al., 2014), future research needs to more sensitively assess the nature of parental supply, including whether adolescent home alcohol use is supervised or unsupervised, specific rules associated with use, and how these factors associate with family structure over time. Another potential limitation of the current study is that parents might have underreported their allowance of adolescent home alcohol use because of social desirability. Future research needs to account for both parental and adolescent reports of home alcohol allowance and to attempt to reconcile discrepancies in these reports by using guided interviews.

The current study has several important implications for prevention and intervention of adolescent alcohol involvement, particularly for treatment involving families. Family-based treatment of adolescent substance use is considered more successful than treatment efforts not involving the family (Liddle, 2010; Waldron & Brody, 2010). Thus, by identifying adolescents who live in environments that have particularly risky characteristics (e.g., nonintact families), prevention and intervention efforts can be tailored toward those adolescents' specific needs in an effort to negate certain predisposing risk factors. Efforts can also be made to educate parents (particularly single parents) about potentially risky outcomes associated with allowing their children to drink at home according to their specific, current family environment.

In conclusion, the current study adds to the literature on alcohol-specific parenting by examining key variables related to alcohol involvement trajectories over a long developmental span and in a racially mixed sample (Kaynak et al., 2014). Our results provide a more nuanced view of the potential costs and benefits of allowing one's adolescent child to drink at home, in particular suggesting that benefits may accrue when the adolescent lives in a stable family environment and has no other predisposing risk factors. In contrast, allowing one's adolescent child to drink at home may confer heightened risk when these circumstances do not apply. These data suggest that broad statements about the risks and benefits of allowing adolescents to drink at home

are unwarranted and rather should be tailored to specific family contexts.

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